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NOTES ON GEOGRAPHICAL EDUCATION.

BY

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GEOGRAPHICAL EDUCATION IN BRITAIN.—In his annual presidential address to the Royal Geographical Society in May last, Sir Clements R. Markham devotes a large amount of attention to the need for better geographical education in all stages of educational work. Hitherto the argument for better and more geography in English preparatory schools has been largely based on the unappreciated culture, discipline, and practical value of the subject. In the address noted especial and first emphasis is given to the necessity of better-ordered geography work, in order that research in field or in the study may be advanced. In other words, the schools are not laying the necessary foundation for University and post-graduate work in geographical investigation.

The reason for this unfortunate condition is wisely found in the fact that the schools have few teachers who are versed in the elementary principles of the subject.

This plain statement is closely akin to the argument frequently made by Professor Davis and others in this country, that the number of teachers teaching elementary geography who have had any training more advanced than that they are giving to their pupils is small. In Britain and America the conditions seem to be very much the same. The universities must finish better-prepared teachers for the secondary schools, and the secondary schools must in the same way aid the elementary schools. Then, in the course of time, better-prepared pupils will come up to the universities demanding advanced and more inclusive geographical opportunities.

President Markham also gives an enlightening summary of the geographical changes, either incorporated or about to be incorporated, in the Universities of Paris, Oxford, and London. From this summary it appears that geography has been given an important and independent place in the University of Paris, and that more than $10,000 has recently been expended in equipment and in a laboratory. Geography has been advanced in importance to such an extent that it may be taken for the Doctorate.

In the University of London geography has been made a compulsory subject for the degree of B.S., and opportunities will be offered, so that

it will be possible for a geographical student in this country to follow his subject through all the stages of the University course, from matriculation to the doctor's degree.

Because of this, and other advances noted in the address, President Markham is extremely optimistic as to the future development of geography in Britain. He feels that the efforts made under the lead or guidance of the Royal Geographical Society for more than thirty years are at last bearing rich fruit, with a promise of better results each year.

PROGRESS OF GEOGRAPHY IN THE SCHOOLS.—In Part II of the First Year Book of *The National Society for the Scientific Study of Education*, Professor W. M. Davis of Harvard University has published a paper entitled " Progress of Geography in the Schools." In the early part of the paper, Professor Davis emphasizes the necessity in this country of a more efficient organization of geography in the colleges and universities, that the inspiration of higher ideals may react upon the secondary and elementary schools. He then shows how the subject should be ordered and classified in all lines of work in order to produce better mental discipline as a result of its study by pupils of all ages. The paper, as a whole, deserves careful reading by all teachers, especially by secondary teachers, for whom it seems to have been especially written. It is one of the strongest and best-substantiated arguments for scientific geography in schools that have recently appeared in this country.

The following paragraphs present certain helpful suggestions of value to all geography teachers:

Replacement of items by generalities. The hopeful progress that school geography has made in the last twenty years is characterized largely by a diminution in the number of isolated empirical items to be committed to memory, and by a corresponding increase in the number of principles and generalizations to be intelligently studied. There is no reason for thinking that this progress has reached its limit; there is, on the other hand, much ground for believing that, as the teachers and the teachers of teachers of geography gain a larger and broader understanding of the subject in its mature development, the replacement of the lonesome empirical item by the rational category, under which the items are grouped in good fellowship, will continue to increase beyond its present moderate measure. Items must still be presented in abundance, for young pupils need plenty of specific information; but the items should be introduced in illustration of the categories to which they belong, rather than as sufficient unto themselves. In the earlier years of school study the items ought to precede the category and the generalization, for first progress must be largely inductive; but by the time the high school is reached, and probably for a year or two sooner, deduction may be used to a significant extent; that is, the generality may be presented first, and the items may then follow as deductions from it, instead of preceding as elements of its induction. Many teachers are already using the deductive method in teaching the distribution of wet and dry regions as determined by the relation of mountain ranges to the terrestrial wind system; and the success of the method there testifies to the success that may be expected in other cases where the mental processes involved are of a simple and safe order. This matter deserves more emphasis and amplification than I can give it here; suffice it to say that geography will become more and more a scientific method, which always involves deduction along with induction in treating problems where any of the essential facts are unseen.

As geography becomes rational the purely *memoriter* method will hold lower and lower rank in lessons. Such a topic as State capitals, learned in old-fashioned days as a monotonous recitation, may be enlivened by an enlarged treatment, in which many other facts than mere name are associated with the capital city. Many of these peripheral facts may be forgotten, but the central fact will remain more firmly fastened in the memory than if it had but one empirical attachment. So with State boundaries; the mere recitation of boundaries, apart from the geographical relation of the boundaries, is dull work; dull in the book, dull in the teacher, dulling in the pupil. Instead of having such matters learned as mere feats of unreasoning, unassociated memory, they should always be combined in a rational way with other things, so as to make for intelligence, and to develop in the pupil the habit of looking for the meaning of things, instead of dulling, or even repressing, that excellent habit. When rivers are taught only by name and place, it must be that little more is said about them in the textbook and known about them by the teacher. It is very questionable whether it is worth while to use any share of school hours in learning so slender a geographical item as the mere name of a river. It would be much better to omit altogether the account of a country that is thus treated in earlier school years, and to take it up, for the first time, when its general geography is treated in such a manner that mountains, climate, rivers, products, and cities are properly associated. It is well known that the best schools are making excellent progress in such lines as these; but it is not yet time to flatter ourselves that pressure toward such progress is unnecessary.

Geographical facts must be made more real. I recall the true story of a little girl learning her lesson in a question-and-answer geography. *Ques.* "Do the stars shine by day as well as by night?" *Ans.* "They do." The little victim was seen rocking herself to and fro, as if to give even a muscular aid to her memory, and repeating, "They do, they do, they do—they do, they do, they do." The theory of teaching has far outgrown such absurdities, but the practice has not, and we must continue to protest against them. I have in my own experience seen members of a class of teachers try to answer the question: "Why are the days longer than the nights in summer?" by recalling the words from some printed page, instead of by attempting to visualize the plain facts of nature. The moral of this is that the facts of geography must be made more real than they can be by studying only the words of a book. All sorts of observational devices must be summoned to the aid of the printed page. The importance of this principle will be more fully realized when it is recalled that children can know much more than they can say; that their power of observation is far greater than that of expression; and that equality of these two powers is not always reached even in mature minds. In order, therefore, that the little that young pupils can say about geography should be properly proportioned to their whole mental acquaintance with the subject, they should be provided with material, especially with material for observation, in much larger quantity than they are expected to recite, and in much more realistic form than mere names and definitions of unknown things.

Yet such is our servitude to conventional methods that we constantly fail to teach by things; the teaching by words is so much easier. Consider, for example, the rotation of the earth. What is simpler than to observe in an effective manner the elementary facts upon which the extraordinary conclusion is based? And yet how few school children ever learn these facts by well-directed observation before they learn the verbal statement of the conclusion printed in a text book. There is no inherent difficulty in having the necessary observations made by school children at different hours during a two-session school day; particularly that most significant observation, that on the second day the sun can be seen to approach, from the eastern side of the sky, the position that it had in the sky twenty-four hours before. Again, with latitude, in how many schools of our country are the necessary facts taught by observation before the terms are introduced and definitions are memorized? Yet here induction is surely the safe and sound method. I am convinced that the vagueness of popular understanding about things of this kind comes from an over-emphasis of verbal definitions in school years, while facts easily observed are under-emphasized. It would be well to replace the names, diameters, and distances of the planets—matters of small geographical import in any case—with the observational proof that there are planets—other earths—to be seen in the sky, and that young observers can easily follow them among the stars. All these errors of method would be reduced or excluded if the teachers were perfectly easy-minded on such problems; and the easy mind is gained through practical acquaintance with observational methods such as should characterize the more mature stages of geographical study.

Geography indoors should be as largely as possible supplemented by outdoor observations by the pupils; yet I have found a great diffidence among teachers as to outdoor observation, even on their own part. They may have learned very well, indeed, everything that a book has to say about the origin of valleys; they may profess a belief in the destructive work of the streams that flow through the valleys; yet, when it comes to taking a class of children outdoors and using the examples of geographical forms, such as the neighbourhood affords, there is too often an undue hesitation. The teacher's lack of self-confidence would be greatly diminished if her own school work had been more liberally guided, and if her days of professional preparation had been spent in the consideration of a decidedly more mature phase of geography than that on which her skill is afterward to be exercised.